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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,938	12/15/2003	Joseph John Fatula JR.	SJ0920030067US1	3722
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Kunzler & McKenzie 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			EXAMINER TAYLOR, NICHOLAS R	
			ART UNIT 2141	PAPER NUMBER
			MAIL DATE 02/05/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/735,938

Applicant(s)

FATULA, JOSEPH JOHN

Examiner

Nicholas R. Taylor

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 20-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 20-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-9 and 20-35 have been examined and are rejected.

### *Response to Arguments*

2. Applicant's arguments filed November 7th, 2007, with respect to the claims have been considered but are moot in view of the new grounds of rejection. The new grounds of rejection appear below. The rejection under 35 U.S.C. § 101 is withdrawn.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 and 20-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chase et al. ("Dynamic virtual clusters in a grid site manager") and Fu et al. ("SHARP: An Architecture for Secure Resource Peering").

5. As per claims 1, 20, 24, and 30, Chase teaches an autonomic management apparatus for autonomic management of system resources on a grid computing system, (Chase, abstract and overview sections)

the apparatus comprising:

a monitor module configured to monitor the grid computing system for a trigger event; (Chase, section 3.2, see monitoring performed by virtual cluster management module)

a policy module configured to access one of a plurality of system policies, each of the plurality of system policies corresponding to an operational control parameter of a system resource of the grid computing system; and a regulation module configured to autonomically regulate the system resource in response to a recognized trigger event according to one of the plurality of system policies (Chase, section 4, see e.g., the resize function that applies policies to allocate and reallocate system resources, where the functionality is also performed based on a trigger event).

However, Chase fails to specifically teach wherein the plurality of system policies comprises a system prediction policy.

Fu teaches the use of system prediction policies (Fu, see overview of pg. 134, paragraphs 2 and 3; see section 2.2 discussing predictive policies where resource use is anticipated).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Chase and Fu to provide the framework of Fu in the system of Chase, because Fu describes the SHARP framework that is explicitly used in the system of Chase (see Chase, section 3.3, which references the intended use of the SHARP framework).

6. As per claims 2 and 25, Chase-Fu teaches the system further wherein the trigger event comprises one of an initiation trigger event, a regulation trigger event, and a prediction trigger event (Chase, section 4, see e.g., the resize functionality).

7. As per claim 3, Chase-Fu teaches the system further wherein the operational control parameter comprises a command to regulate the system resource (Chase, section 4, see e.g., the resize functionality).

8. As per claim 4, Chase-Fu teaches the system further wherein the system resource comprises one of a client processor capacity, a client storage capacity, and a client memory capacity allocated to the grid computing system (Chase, page 5, where the resource comprises the ability to run an executable job).

9. As per claims 5, 21, and 26, Chase-Fu teaches the system further wherein the regulation module comprises a reservation module configured to reserve the system resource for a grid system operation (Chase, overview, see, e.g., the resource reservation of page 3).

10. As per claims 6, 22, and 27, Chase-Fu teaches the system further wherein the regulation module comprises a termination module configured to terminate a reservation of a system resource for a grid system operation (Chase, page 6, e.g., the priority based

termination based on grid system operation; see also the termination in live trace experiment in section 5.2).

11. As per claims 7 and 28, Chase-Fu teaches the system further wherein the regulation module comprises an arbitration module configured to arbitrate conflicting grid system operations according to an arbitration policy (Chase, section 3.3 resource negotiation module).

12. As per claims 8 and 29, Chase-Fu teaches the system further wherein the regulation module comprises a profile module configured to store a system resource profile, the system resource profile identifying a system resource of a client, the system resource allocated by the client to the grid computing system (Chase, see section 4 and 5.2 where resource profiles are maintained for all of the member client nodes).

13. As per claim 9, Chase-Fu teaches the system further wherein the plurality of system policies further comprises at least one of a system regulation policy and a system termination policy (Chase, section 4).

14. As per claim 23, Chase teaches a method for autonomic management of grid system resources on a grid computing system, (Chase, abstract and overview sections) the method comprising:

monitoring the grid computing system for a trigger event, the trigger event comprising one of an initiation trigger event, a regulation trigger event, and a prediction trigger event; (Chase, section 4, where the resource allocation is based on a trigger event)

accessing one of a plurality of system policies, each of the plurality of system policies corresponding to an operational control parameter of a system resource of the grid computing system, the operational control parameter comprising a command to regulate the system resource; regulating the system resource in response to a recognized trigger event according to one of the plurality of system policies and, (Chase, section 4, see e.g., the resource management applied by the VCM on page 5 that changes operational control parameters to regulate system resources based on a plurality of system policies)

the system resource comprising one of a client processor capacity, a client storage capacity, and a client memory capacity allocated to the grid computing system; (Chase, page 5, where the resource comprises the ability to run an executable job)

storing a system resource profile, the system resource profile identifying a system resource of a client, the system resource allocated by the client to the grid computing system (Chase, see section 4 and 5.2 where resource profiles are maintained for all of the member client nodes).

However, Chase fails to specifically teach wherein the plurality of system policies comprises a system prediction policy.

Fu teaches the use of system prediction policies (Fu, see overview of pg. 134, paragraphs 2 and 3; see section 2.2 discussing predictive policies where resource use is anticipated).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Chase and Fu to provide the framework of Fu in the system of Chase, because Fu describes the SHARP framework that is explicitly used in the system of Chase (see Chase, section 3.3, which references the intended use of the SHARP framework).

15. As per claim 31, Chase-Fu teaches the system further wherein the system prediction policy is based on collected historical information (Fu, see, e.g., the lower half of col. 1 on pg. 137 where the use of historical data is contemplated).

16. As per claim 32, Chase-Fu teaches the system further wherein the regulation module is further configured to predictively adjust the system resource according to the system prediction policy in anticipation of a typical resource usage (Fu, see overview of pg. 134, paragraphs 2 and 3; see section 2.2 discussing predictive policies where resource use is anticipated).

17. As per claim 33, Chase-Fu teaches the system further comprising predictively adjusting the system resource according to the system prediction policy in anticipation of a typical resource usage, wherein the system prediction policy is based on collected



historical information (Fu, overview of pg. 134, paragraphs 2 and 3; see section 2.2 discussing predictive policies where resource use is anticipated; see, e.g., the lower half of col. 1 on pg. 137 where the use of historical data is contemplated).

18. As per claim 34, Chase-Fu teaches the system further comprising adjusting a fee assessed to a user of the grid computing system based on a change in the system resource (Fu, see, e.g., fee systems of last paragraph of col. 1, pg. 137).

19. As per claim 35, Chase-Fu teaches the system further comprising blocking a potential change in at least one of the system policies according to a threshold corresponding with a subscription criteria (see Fu, section 3.5 on pgs. 140-141 and related security implementation details).

### ***Conclusion***

20. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-3889. The examiner can normally be reached on Monday-Friday, 8:00am to 5:30pm, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT 2-1-08

Nicholas Taylor  
Examiner  
Art Unit 2141

  
JASON CARDONE  
SUPERVISORY PATENT EXAMINER